



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

SCIENCE

FRIDAY, JUNE 27, 1919

CONTENTS

<i>The Pacific Division of the American Association for the Advancement of Science:—</i>	
<i>Growth in Organisms: DR. D. T. MACDOUGAL.</i>	599
<i>Joseph Barrell: PROFESSOR CHAS. SCHUCHERT.</i>	
605	
<i>Scientific Events:—</i>	
<i>The Solar Eclipse; Revista Matematica Hispano-Americana; Expeditions of the California Academy of Sciences; Foreign Delegates and Guests of the American Medical Association; Honorary Degrees at Yale University</i>	607
<i>Scientific Notes and News</i>	610
<i>University and Educational News</i>	611
<i>Discussion and Correspondence:—</i>	
<i>Tectonic Form of the Continents: DR. CHARLES KEYES. American Assistance for Russian Educational Institutions: PROFESSOR N. BORODIN</i>	612
<i>Scientific Books:—</i>	
<i>Young's Lessons and Elements of Astronomy: PROFESSOR CHARLES LANE POOR.....</i>	614
<i>Special Articles:—</i>	
<i>Further Studies in Colloid Chemistry and Soap: PROFESSOR MARTIN H. FISCHER</i>	615
<i>The Buffalo Meeting of the American Chemical Society: DR. CHARLES L. PARSONS</i>	618

MSS. intended for publication and books, etc., intended for review should be sent to The Editor of Science, Garrison-on-Hudson, N. Y.

GROWTH IN ORGANISMS¹

THE main proposals discussed in this address were as follows:

1. The development of an organism from the spore or embryonic stage includes the two processes of auxesis or enlargement and of differentiation both in the single cells or elements and in the organs.

2. The present studies are based upon the conception that living matter is composed mainly of pentosans and albumins or albumin derivatives with lipins as a minor component. The proportion of the main components may vary from nearly a hundred per cent. to nearly zero.

3. The principal and characteristic substances of the two groups are practically non-diffusible and hence come together only as an intimate mixture in a colloidal condition, with varying arrangement.

4. Growth of living matter consists of hydration with accompanying swelling and of accretion of solid matter, the two processes being actually independent.

5. The hydration of the substances belonging to the two main components is affected in an opposite manner by hydrogen ions, and is variously modified by temperature and other conditions: the rate and amount of growth is a resultant of several reactions.

6. Accretions of new material include the absorption of salts which tend to restrict hydration and the incorporation of amino-compounds. So-called nutrient salts do not constitute food but may act as catalysts or releasers of energy in other substances and as controls.

7. The enlargement of cells is almost entirely by the swelling which results from hy-

¹ Presidential address, Pacific Division of the American Association for the Advancement of Science meeting at Pasadena, June 19, 1919. Manuscript abbreviated by the author.